RANGE EXTENSION OF THE WESTERN HEATH DRAGON RANKINIA ADELAIDENSIS AND GRAY'S LEGLESS LIZARD DELMA GRAYII WITH NOTES ON THE DISTRIBUTION OF SOUTHERN SWAN COASTAL PLAIN REPTILES

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The Swan Coastal Plain extends northwards towards Jurien and to Dunsborough in the south. The Swan Coastal Plain has a rich reptile fauna with up to 50 species expected in the Perth Region (How and Dell 1993, 1994, 2000; Bush et al. 1995). Species that are adapted to sandy soils dominate the reptile diversity. most notably the pygopods, fossorial skinks and fossorial snakes. Although the fauna of the Perth region is considered well known, a number of species thought to be mostly restricted to the Swan Coastal Plain have found been as outlying populations once comprehensive surveys were undertaken. These include Delma grayii (Shark Bay), Pletholax gracilis (Shark Bay), Aclys concinna (Shark Bay) and Lerista lineata (Woodleigh), By contrast, some species such as Lerista christinae and Simoselaps calonotus are entirely restricted to the Swan Coastal Plain.

The distributions of some species of fossorial reptile are disjunct and often do not extend south of the Perth metropolitan region. These include Lerista christinae. Pletholax gracilis and Aclvs concinnna. The reasons for these distribution patterns are unclear and may simply reflect greater survey effort and human population base in the northern suburbs. Given the extent of apparently suitable habitat on the Swan Coastal Plain, we suggest that the paucity of records of these species in southern regions (extending from Baldivis to Dunsborough) may simply be due to a paucity of intensive fauna survey work at the expense of resourceinterest areas such as the Pilbara and Kimberley. This is further evidenced by the fact that recent fieldwork in the Perth metropolitan region recorded Diplodactylus alboguttatus south of the Swan River for the first time (Turpin, 1990) and the blind snake *Ramphotyphlops pinguis* was recorded on the Swan Coastal Plain for the first time (Algaba, 2005). Ongoing survey work is likely to continue to add to our knowledge of species distributions on the Swan Coastal Plain.

On the southern Swan Coastal Plain, the Peel region encompassing Mandurah has been subject to rapid and intense development pressure in the past decade yet there appears to have been few large-scale terrestrial fauna surveys in the region (pers. obs.). As a consequence, any major surveys in this region have tended to provide interesting records. Davis and Bamford (2005) reported on the first record of Lerista lineopunctulata from the Yalgorup area. This species was previously recorded south to the southern suburbs of Como. Davis and Perth at Bamford (2005) also reported the second record of Lerista lineata from the Yalgorup region and suggested that further fauna work in the area may resolve the southerly distribution of fossorial reptile species. On 26 November 2007 we pit-trapped a further specimen of Lerista lineata south of the Preston Beach townsite in coastal Acacia rostellifera scrub. This specimen was vouchered with the WA Museum (R141425). A further specimen of L. lineopunctulata was also trapped in the same habitat during the survey, but was not vouchered.

On 19 December 2006, a single specimen of the Western Heath Dragon Rankinia adelaidensis was captured at Caddadup Reserve (City of Mandurah) at location (WGS 84) 371170 E. 6390095 N. The habitat was coastal heath of Acacia rostellifera. Spyridium globulosum and Olearia axillaris on This dunes. coastal sand individual was lodged with the Western Australian Museum (R166870) and the identity confirmed.

Bush *et al.* (1995) describe the habitat of *Rankinia adelaidensis* as low coastal vegetation on beaches and dunes, including heathlands and banksia woodlands on the Swan Coastal Plain. This record was therefore within known suitable habitat.

On 22 March 2007, a further specimen of *Rankinia adelaidensis* was captured adjacent to the Preston Beach townsite. The habitat was coastal vegetation of *Acacia rostellifera* and *Spyridium* globulosum on sand dunes. This specimen was lodged with the WA Museum as R165887.

According to records on the WA Musuem Database, the previous most southerly records of *R. adelaidensis* are from Gosnells (R41647), Bentley (R46204), Jandakot (a number of records) and Willetton (R89363). There is a sight record from Port Kennedy in the Rockingham area (B. Maryan, pers. comm.) and this seems to be the southern limit of their known range. Intriguingly there is an old record from Harry Butler from the south-west Cape region at Deepdene in 1957 (R12427). This record is very outlying to the current distribution, and of only a single individual and it is possible that the location is in error. Either way, a contemporary search in the Cape area and confirmation of the presence of suitable habitat is recommended.

A further southerly reptile range extension also took place on 22 March 2007 with the capture of a Delma gravii in coastal vegetation Acacia rostellifera of and Spyridium globulosum on sand dunes south of the Preston Beach townsite. This individual was registered with the WA Museum as R130146. The previous most southerly records of this species include animals captured at Canning Vale in 1982 (R81283) and 1985 (R93699), Forrestdale (date unknown, R4439), Cape Peron in 1960 (R14785) and Rockingham in 1966 (R29393). There is also a very outlying record from Donglocking Nature Reserve collected in the WA Museum Biological Survey of 1974 (R49611) in the southern Wheatbelt (Chapman and Dell 1978). Thus Delma grayii, like Rankinia adelaidensis was known on the Swan Coastal Plain from as far south as the Rockingham area, but these records represent a substantial new extension to the south.

The current range extensions reported, combined with recently reported range extensions of *L*. *lineopunctulata* and *L*. *lineata*, raise the possibility of further records

of species such as Simoselaps calonotus, Pletholax gracilis, Aclys concinna and Delma grayii that have not been previously recorded from the southern or far northern Swan Coastal Plain. For example, Simoselaps calonotus was recently photographed 15km SSW of Eneabba on 24 November 2007 and a record lodged with the WA Museum by Ecologia Environmental Scientists. This specimen is further south than the most northerly record at Dongara, but represents a significant infilling of the range (the next specimen south is from the Cataby area). Any of these reptile species may occur where suitable sandy habitats are present and may have a continuous distribution northwards and southwards from the Perth metropolitan region. Further fauna surveys across the Swan Coastal Plain are recommended to more fully resolve the distribution of reptiles in the region.

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